



	! 10	1 20	ı	30	1 40	1 50	1 60	
1	MATGCTACTA						MICHMI	60
	ATAGCTAAAC						TAAATCTACT	
121	CGTTCGCAGA	ATTGGGAATC	AACTGTT	ACA			CCGTACTTTA	
	GTTGCATATT						CTCTAAGCCA	
	TCTGCAAAA						TCCTGACCTG	
	TTGGAGTTTG				GAAGCTCGAA	TTARANCECE	ATATTTGAAG	360
	TCTTTCGGGC				GCAATCCGCT	TIGOTICICA	CTATAATAGT	420
	CAGGGTAAAG						GTTTAAAGCA	
	TTTGAGGGGG						TATCCAGTCT	
	AAACATTTTA						TOGOTATITI	
	GGTTTTTATC						TATGCCTCGT	
	AATTCCTTTT						ATCTCAACTG	
	ATGAATCTTT						CGTAGATTTT	
	TCTTCCCAAC						AGGTAATTCA	
	CAATGATTAA						TCTGGTGTTT	
	CTCGTCAGGG						TTGGGTAATG	
	AATATCCGGT						CCCCTCGTC	
	TGTACACCGT						ATGATTGACC	
	GTCTGCGCCT				GAGCAGGTCG			
	CAGGCGATGA						CCCTCCCCCT	
	CAAAGATGAG						TGCCTTCGTA	
	GTGGCATTAC						CTITAGTCCT	
1321	CAAAGCCTCT	GTAGCCGTTG	CTACCCT	CGT			CTGAGGGTGA	
	CGATCCCGCA						ATATOGGTTA	
1441	TGCGTGGGCG	ATGGTTGTTG	TCATTGT	CCC			TGTTTAAGAA	
1501	ATTCACCTCG	AAAGCAAGCT	CATALAC	CCY			GGAGCCTTTT	
1561	TTTTTCGAGA	TTTTCAACGT	CAAAAA	TTA			TETTCCTTTC	
1621	TATTCTCACT	CCCCTCAAAC	TETTEAL	AGT			AGAMATTCA	
1681	TTTACTAACG	TCTGGAAAGA	CGACAAA	ACT			TEAGGETTET	
1741	CTGTGGAATG	CTACAGGCGT	TCTACTT	TCT			TTACCGTACA	
1801	TEGETTECTA	TTGGGCTTGC	TATCCCT	CAA			CCCTCCCCCT	
1061	TCTGAGGGTG	GCGGTTCTGA	GCCTCGC	GCT			TGATACACCT	
1921	ATTCCGGGCT	ATACTTATAT	CAACCCT	CTC	GACGGCACTT			
1901	AACCCCGCTA	ATCCTAATCC	TTCTCTT	CAC			TITCATGTTT	
2041	CAGAATAATA	GGTTCCGAAA	TAGGCAG	CCC			CACTGTTACT	
3101	CAAGGCACTG	ACCCCCTTAA	AACTTAT	TAC			ANAGCCATG	
	TATGACGCTT						CTITALICAL	
2221	CATCCATTCG	TTTGTGAATA	TCAAGGC	CAA	TOSTOTGACO	TECCTCAACC	TCCTGTCAAT	2280
2561	CCTCCCCCC	CCTCTCCTGG	TOSTICI	CET			CTCTGAGGGT	
2343	CCCCCTTCTC	MCGCTCCCCC	CTCTGAG	CCA	GGCGGTTCCG	GTGGTGGCTC	TEGTTCCGGT	2400
2401	CYLLLICYLL	ATGANAGAT	CCCAAAC	CCI	AATAAGGGGG			
3461	convecce	TACAGTCTGA	CCCTAAA	CCC			TGATTACGGT	
3257	GCTGCTATCG	ATCCTTTCAT	TEGTEAC	CII	TCCGGCCTTG	CTANTOGTAN	TESTECTACT	2580
3267	CCICYLLLC	CIGCCICIAA	TTCCCAA	ATG	CCTCAAGTCC	GTGACGGTGA	TAATTCACCT	2640
3643	TTAATCAATA	ATTTCCGTCA	ATATTA	CCT	TCCCTCCCTC	ANTOGETTEA	ATGTCGCCCT	2700
3701	TTTGTCTTTA	CCCCTCCTAA	ACCATAT	CXX			AATAAACTTA	
2761	11CCC1CC1C	1C1116CE11	TCTTTTA	tat	CLICCCYCCI	TRAIGIATET	ATTITCTACE	2820
2621	TTTGCTAACA	TACTOCCTAA	TANCENS	101	TAATCATGCC			
2001	TATTATTCCG	IIICCICCCI	11CC11C	700	INCITICIT			
2941	TTANAMAGGG	CTTCCCTAAG	ATAGCTA	116	CIATITCATI	ellicileci	CTTATTATTG	3000
3001	GGCTTAACTC	Wilchiele	CCTTATC	101	CTGATATTAG	COCTCAATTA	CCCTCTGACT	3060
2001	TTGTTCAGGG	TOTTCACTTA	YLLCICO	CCT	CTAATGCGCT			
3121	TCTCTCTAAA	COCTOCIATI	LICYLLI	116	ACCTTANACA			
3341	ATTGGGATAA	ATAATATCCC	TUITIAT	111	GTAACTGGCA			
3301	CTCGTTAGCG	TIGGIANGAT	TCAGGAT	M	ATTGTAGCTG			
3341	CTTGATTTAA	COCTICION	CCTCCCC		GTCCGGAGGT			
3421	CTTAGAATAC	CCCATAAGCC	TICIATA	ICI	CATTICCTIC			
3441	TCCTACGATG		COCCTTG	CTT	GTTCTCGATG			
7541	ACCCGTTCTT	WANTESTAX.	CCANACA		CCCATTATTG			
3403	AAATTAGGAT CETTCTCCAT	COGNIATIAT	HILLI	611	CAGGACTTAT			
3667	CGTTCTGCAT TTTGTCGGTA	TAGCTERACA	TOTTOTT	TAT			TACTITACCT	
3721	GTTGGCGTTG	TITALATIC	TUTTATT	WET	GCCTCGAAAA			
3781	ACTOCTAACA	ATTOC	CCCLET				TICCCTTTAT	
	I I MANA	WITIGINIW	TOTALVE	mv1	ACTANACAGE	CITITICIAS	TAATTATGAT	3 540



1841 TOCCGOTGTTT ATTOTTATT AMOGCOTTAT TTATCACAGE GTCCGTATTT CAAACCATTA 3900 3901 AATTTAGGTC AGAAGATGAA GCTTACTAAA ATATATTTGA AAAAGTTTTC ACGCGTTCTT 3960 1961 TGTCTTGCGA TTGGATTTGC ATCAGCATTT ACATATAGTT ATATAACCCA ACCTAAGCCG 4020 4021 GAGGTTAAAA AGGTAGTCTC TCAGACCTAT GATTTTGATA AATTCACTAT TGACTCTTCT 4080 4081 CAGCGTCTTA ATCTAACCTA TCGCTATGTT TTCAAGGATT CTAACCGAAA ATTAATTAAT 4140 4141 AGCGACGATT TACAGAAGCA AGGTTATTCA CTCACATATA TTGATTTATG TACTGTTTCC 4200 4201 ATTAAAAAG GTAATICAAA TGAAATTGTT AAATGTAATT AATTITGTTT TCTTCATGTT 4260 4261 TGTTTCATCA TCTTCTTTTG CTCAGGTAAT TGAAATGAAT AATTCGCCTC TGCGCGATTT 4320 4321 TGTAACTTGG TATTCAMGC AATCAGGCGA ATCCGTTATT GTTTCTCCCG ATGTAMAGG 4380 4381 TACTGTTACT GTATATICAT CTGACGTTAA ACCTGAAAAT CTACGCAATT TCTTTATTTC 4440 4441 TGTTTTACGT GCTAATAATT TTGATATGGT TGGTTCAATT CCTTCCATAA TTCAGAAGTA 4500 4501 TAATCCAAAC AATCAGGATT ATATTGATGA ATTGCCCATCA TCTGATAATC AGGAATATGA 4560 4561 TGATAATTCC CCTCCTTCTG GTGGTTTCTT TETTCCGCAA AATGATAATG TTACTCAAAC 4620 4621 TTTTAAAATT AATAACGTTC GGGCAAAGGA TTTAATACGA GTTGTCGAAT TGTTTGTAAA 4680 4681 GTCTAATACT TCTAAATCCT CAAATGTATT ATCTATTGAC GGCTCTAATC TATIAGTTGT 4740 4741 TAGTGCACCT AAAGATATTT TAGATAACCT TCCTCAATTC CTTTCTACTG TTGATTTGCC 4800 4801 AACTGACCAG ATATTGATTC AGGSTTTGAT ATTTGAGGTT CAGCAAGGTG ATGCTTTAGA 4860 4861 TITTTCATTT GCTGCTGGCT CTCAGCGTGG CACTGTTGCA GGCGGTGTTA ATACTGACCG 4920 4921 CCTCACCTCT GTTTTATCTT CTGCTGGTGG TTCGTTCGGT ATTTTTAATG GCGATGTTTT 4980 4981 AGGGCTATCA GTTCGCGCAT TANAGACTAA TAGCCATTCA AAAATATTGT CTGTGCCAGG 5040 5041 TATTCTTACE CTTTCAGGTC AGAAGGGTTC TATCTCTGTT GGCCAGAATG TCCCTTTTAT 5100 5101 TACTGGTCGT GTGACTGGTG AATCTGCCAA TGTAAATAAT CCATTTCAGA CGATTGAGCG 5160 5161 TCAAAATGTA GGTATTTCCA TGAGCGTTTT TECTGTTGEA ATGGETGGEG GTAATATTGT 5220 5221 TOTGGATATT ACCAGCAAGG CCGATAGTTT GAGTTCTTCT ACTCAGGCAA GTGATGTTAT 5280 5281 TACTAATCAA AGAAGTATTG CTACAACGGT TAATTTGCGT GATGGACAGA CTCTTTTACT 5340 5341 COGTOGOCCTC ACTORITATA ANACACTTC TCARGATTCT GCCGTACCGT TCCTGTCTAA 5400 5401 AATCCCTTTA ATCGGCCTCC TGTTTAGCTC CCGCTCTGAT TCCAACGAGG AAAGCACGTT 5460 5461 ATACGTGCTC GTCAAAGCAA CCATAGTAGG CGCCCTGTAG CGGCGCATTA AGCGCGGCGG 5520 5521 GTGTGGTGGT TACGCGCAGC GTGACCGCTA CACTTGCCAG CGCCCTAGCG CCCCCTCCTT 5580 SSB1 TOGOTTTOTT COCTTOCTTT CTCGCCACGT TCCCCGGCTT TCCCCGTCAA GCTCTAAATC 5640 5641 GGGGGCTCCC TITAGGGTTC CGATTTAGTG CTTTACGGCA CCTCGACCCC AAAAAACTTG 5700 5701 ATTTGGGTGA TGGTTCACGT AGTGGGCCAT CGCCCTGATA GACGGTTTTT CGCCCTTTGA 5760 5761 COTTGGAGTC CACGITCTTT AATAGTGGAC TCTTGTTCCA AACTGGAACA ACACTCAACC 5820 5021 CTATCTCGGG CTATCTTTT CATTTATAG GGATTTTGCC CATTTCGGAA CCACCATCAA 5880 SBB1 ACAGGATTTT COCCTGCTGG GGCAAACCAG CGTGGACCGC TTGCTGCAAC TCTCTCAGGG 5940 5941 CCAGGCGGTC AAGGGCAATC AGCTGTTGGC CGTCTCGCTG GTGAAAGAA AAACCACCCT 6000 6001 GGCGCCCAAT ACGCAAACCG CCTCTCCCCG CGCGTTGGCC GATTCATTAA TGCAGCTGGC 6060 6061 ACGACAGGTT TECCGACTEG ANAGEGGGCA GTGAGCGCAA CGCAATTAAT GTGAGTTAGC 6120 6121 TEACTEATTA GECACCEEAG GETTTACACT TTATGETTEC GGETEGTATG TTGTGTGGAA 6180 6181 TTGTGAGCGG ATAACAATTT CACACGCGTC ACTTGGCACT GGCCGTCGTT TTACAACGTC 6240 6241 GTGACTGGGA ANACCCTGGC GTTACCCAAG CTTTGTACAT GGAGAAAATA AAGTGAAACA 6300 6301 AAGCACTATT GCACTGGCAC TCTTACCGTT ACCGTTACTG TTTACCCCTG TGACAAAAGC 6360 6361 CGCCCAGGTC CAGCTGCTCG AGTCAGGCCT ATTGTGCCCCA GGGGATTGTA CTAGTGGATC 6420 6421 CTAGGCTGAA GGCGATGACC CTGCTAAGGC TGCATTCAAT AGTTTACAGG CAAGTGCTAC 6480 6481 TGAGTACATT GGCTACGCTT GGGCTATGGT AGTAGTTATA GTTGGTGCTA CCATAGGGAT 6540 6541 TAAATTATTC AAAAAGTTTA CGAGCAAGGC TTCTTAAGCA ATAGCGAAGA GGCCCGCACC 6600 6601 GATCGCCCTT CCCAACAGTT GCGCAGCCTG AATGGCCGAAT GGCGCTTTGC CTGGTTTCCG 6660 6661 GENERALAG COGTOCCOGN ANGETGGCTG CNGTGCGATC TTCCTGNGGC CGNTACGGTC 6720 6721 GTCGTCCCCT CAAACTGCAA GATGCACGGT TACGATGCGC CCATCTACAC CAACGTAACC 6780 6781 TATCCCATTA COGTCAATCC GCCGTTTGTT CCCACGGAGA ATCCGACGGG TTGTTACTCG 6840 6841 CTCACATTA ATGTTGATGA AAGCTGGCTA CAGGAAGGCC AGACGCGAAT TATTTTTGAT 6900 6901 GCCCTTCCTA TTGGTTAMA AATGAGCTGA TTTAACAAAA ATTTAACGCG AATTTTAACA 6960 6961 AMATATAME GTTIMEMATI TAMATATITE CTTATACAMI CTTCCTGTTI TIGGGGCTTI 7020 7021 TETGATTATE ANCESSESTA CATATEATTS ACATECTAGE TITACGATTA COSTICATOS 7000 7001 ATTETETTET TECTCEAGA CTCTCAGGCA ATGACCTGAT AGCCTTTGTA GATCTCTCAA 7140 7141 AAATAGCTAC CCTCTCCGGC ATTAATTTAT CAGCTAGAAC GGTTGAATAT CATATTGATG 7200 7201 GTGATTTGAC TGTCTCCGGC CTTTCTCACC CTTTTGAATC TTTACCTACA CATTACTCAG 7260 7261 GCATTGCATT TAXAATATAT GAGGGTTCTA AAAATTTTTA TCCTTGCGTT GAAATAAAGG 7320 7321 CTTCTCCCGC AAAAGTATTA CAGGGTCATA ATGTTTTTGG TACAACCGAT TTAGCTTTAT 7380 7381 GETETERGGE TITATIGETT ARTTIGGTA ATTETTIGGE TIGGETGIAT GATTIATIGG 1440 7441 ACGTT 7445 10 1 20 1 30 1 40 1 50

PIGURE 3-1

" M13IX11

	1 10	1 20	1 30	1 40	1 50	1 60	
1	AATGCTACTA	CTATTAGTAG				ANATCHNAT	60
61	ATAGCTAAAC	AGGTTATTCA	CCATTTGCGA	AATGTATCTA	ATGGTCAAAC	TAAATCTACT	120
121	CGTTCGCAGA	ATTGGGAATC	AACTGTTACA	TGGAATGAAA	CTTCCAGACA	CCGTACTTTA	160
	GTTGCATATT			CACCAGATTC	AGCAATTAAG	CTCTAAGCCA	240
	TCCGCAAAA			CAATTAAAGG	TACTCTCTAA	TCCTGACCTG	300
	TTGGAGTTTG			GAAGCTCGAA	TTAMACGCG	ATATTTGAAG	360
	TCTTTCGGGC					CTATAATAGT	
	CAGGGTAAAG					GTTTANAGCA	
	TTTGAGGGGG AAACATTTTA			GATTCCGCAG	TATTGGACGC	TATCCAGTCT	540
	GGTTTTTATC					TCGCTATTTT	
	MITCCITT					TATGCCTCGT	
	ATGAATCTTT					ATCTCAACTG	
	TCTTCCCAAC			CCGTIVOTIC	CHILINITA	CGTAGATTTT AGGTAATTCA	780
	CAATGATTAA					TCTGGTGTTT	
	CTCGTCAGGG					TTGGGTAATG	
	AATATCCGGT					CCCCTCCTC	
	TGTACACCGT					ATGATTGACC	
1081	GTCTGCGCCT	CETTCCGCCT	AAGTAACATG	GAGCAGGTCG	CGGATTTCGA	CACAATTTAT	1140
1141	CAGGCGATGA	TACALATOTO	CCTTCTACTT			CGCTGGGGGT	
1201	CAAAGATGAG	TGTTTTAGTG	TATTCTTTCG			TECCTTCETA	
1261	GTGGCATTAC	CIATITIACC	CGTTTAATGG			CTTTAGTCCT	
	CAAAGCCTCT					CTGAGGGTGA	
	CGATCCCGCA					ATATOGGTTA	
	TECETEGECE					TETTTAAGAA	
_	ATTCACCTCG					GGAGCCTTTT	
	TATTTTGAGA					TGTTCCTTTC	
	TTTACTAACG					AGAAAATTCA	
	CTGTGGAATG					TGAGGGTTGT TTACGGTACA	
	TEGETTECTA	-				GGGTGGCGGT	
	TCTGAGGGTG					TGATACACCT	
	ATTCCGGGCT					TACTGAGCAA	
	AACCCCCCTA					TTTCATGTTT	
2041	CAGAATAATA	GGTTCCGANA	TAGGCAGGGG			CACTGTTACT	
2101	CAAGGCACTG	ACCCCGTTAA	AACTTATTAC			AAAAGCCATG	
	TATGACGCTT					CTTTAATGAA	
	GATCCATTCG					TCCTGTCAAT	
	CCTCCCCCCC					CTCTGAGGGT	
-	CCCCCTTCTC					TESTTCCCCT	
	CATTTTCATT					AAATGCCCEAT	
	GAMACGCGC					TGATTACGGT	
	CCTGATTTTG					TOGTOCTACT	
	TTAATGAATA					ATGTCGCCCT	
	TITGICITIA					AATAMCTTA	
	TICCGIGGIG					ATTTTCTACE	
3637	TTTGCTAACA	TACTOCCTAA	TANGENGTET	TAATCATGCC	AGTICTITIE	CETATTCCET	2880
2881	TATTATTECE	IIICCICCEI	11CC11C1GC			CTTACTITIC	
2941	TTAMMGGG	CTTCGGTAAG	ATAGCTATTG			CTTATTATTG	
3001	GCCTTAACTC	MITCHE	CCTTATCTCT			CCCTCTGACT	
3061	TTGTTCAGGG	TETTCACTTA	VIICICCOEL			TATGTTATTC	
3101	TCTCTGTAAA	GCCTCCIATT	TICATITIE			TCTTATTTGG	
3243	ATTGGGATAA CTCGTTAGCG	AIAAIAIGA TTCCT11C10	#6111 4111			TOGANAGACE	
3301	CTIGATITAA	CCCTTCLLA	CCACCCCCTT			AGCAACTAAT	
3361	CTTAGAATAC	CEGATALOR	TICTATATET			COCTOCCETT	
3421	TCCTACGATG	AAAATAAAA	CGGCTTGCTT			TIGGITIAN	
3481	ACCCGTTCTT	CCAATCATAA	GGAAAGACAG			ACATOCTOST	
3541	AAATTAGGAT	CCCATATIAT	TITICITETI			TAAACAGGGG	
3601	CETTCTCCAT	TAGCTGAACA	TGTTGTTTAT			TACTITACCT	
3661	TTTGTCGGTA	CTTTATATTC	TCTTATTACT			TAAATTACAT	
3721	CTTCCCCTTC	TTANATATOS	CENTICICAN			TIGGCTITAT	
3781	ACTGGTAAGA	ATTTGTATAA	CGCATATGAT	ACTANACACS	CTTTTTCTAG	TAATTATGAT	3840

FIGURE 3-2

3841	TCCGGTGTTT	ATTCTTATTT	AACCCCTTAT	TATCACAC	GTCGCTATTT	C111001001	1000
	AATTTAGGTC			1717199901	AAAAGTTTTC	CVVVCCVIIV	3700
	TETETTECEA						
	GAGGTTAAAA				ATATAACCCA		
					AATTCACTAT		
	CAGCGTCTTA				CTAAGGGAAA		
	AGCGACGATT				TTCATTTATG		
	ATTAMMAG			MATCTAATT	AATTTTGTTT	TCTTGATGTT	1260
	TGTTTCATCA			TGAAATGAAT	AATTCGCCTC	TGCGCGATTT	4320
4321	TGTAACTTGG	TATTCAMAGC	aatcaggcga	ATCCGTTATT	GTTTCTCCCG	ATGTAAAAGG	4380
4381	TACTGTTACT	GTATATTCAT	CTGACGTTAA	ACCTGAAAAT	CTACGCAATT	TCTTTATTTC	4440
4441	TGTTTTACGT	GCTAATAATT	TTGATATGGT	TGGTTCAATT	CCTTCCATAA	TTCAGAAGTA	4500
4501	TAATCCAAAC	AATCAGGATT	ATATTGATGA		TCTGATAATC		
4561	TGATAATTCC	GCTCCTTCTG	GIGGITICTI		AATGATAATG		
	TTTTAAAATT				GTTGTCGAAT		
	GTCTAATACT				GGCTCTAATC		
	TAGTGCACCT		_		CTTTCTACTG		
	AACTGACCAG						
					CAGCAAGGTG		
	TTTTTCATTT				GGCGGTGTTA		
	CCTCACCTCT				ATTTTTAATG		
	AGGGCTATCA			TAGCCATTCA	AAAATATTGT	CTGTGCCACG	5040
	TATTCTTACG			TATCTCTGTT	CCCCAGAATG	TCCCTTTTAT	5100
5101	TACTGGTCGT	CTGACTGGTG	AATCTCCCAA	TGTAAATAAT	CCATTTCAGA	CCATTGAGCG	5160
5161	TCAAAATGTA	CETATTTCCA	TGAGCGTTTT	TCCTGTTGCA	ATGGCTGGCG	GTAATATTGT	5220
5221	TCTGGATATT	ACCAGCAAGE	COGATAGITT	GAGTTCTTCT	ACTCAGGCAA	GTGATGTTAT	5280
5281	TACTAATCAA	AGAAGTATTG	CTACAACGGT	TAATTTGCGT	GATGGACAGA	CTCTTTTACT	5340
5341	CGGTGGCCTC	ACTGATTATA	AAAACACTTC		GGCGTACCGT		
5401	AATCCCTTTA	ATCGGCCTCC	TGTTTAGCTC		TCCAACGAGG		
	ATACGTGCTC				CGGCGCATTA		
	GTGTGGTGGT				CCCCTAGCG		
	TOGGTTTCTT				TCCCCGTCAA		
	GGGGGCTCCC				CCTCGACCCC		
	ATTTGGGTGA						
	CETTEGAGTC				GACGGTTTTT		
	CTATCTCGGG				AACTGGAACA		
	ACAGGATTTT				GATTTCGGAA		
	CCAGGCGGTG				TTGCTGCAAC		
					GTCAAAAGAA		
	GGCGCCCAAT				GATTCATTAA		
	ACGACAGGTT				CGCAATTAAT		
	TCACTCATTA				GGCTCGTATG		
	TTGTGAGCGG				ataatgaaat		
	TACGGCAGCC				GCCATGGCCG		
	GACCCAGACT			AGTGTTAATT	CTAGAACGCG	TCACTTGGCA	6360
	CTGGCCGTCG			CHANACCETE	CCCTTACCCA	AGCTTAATCG	6420
	CCTTGCAGAA			TAATAGCGAA	CYCCCCCCY	CCCY1CCCCC	5480
	TTCCCAACAG			ATGGCGCTTT	CCCTCCTTTC	CCCCACCAGA	6540
6541	AGCGGTGCCG	CYNYCCICCE	TOGACTOCCA	TCTTCCTGAG	GCCGATACGG	TOSTOSTOCC	6600
	CTCAAACTGG			CCCCATCTAC	ACCAACCTAA	CCTATCCCAT	6660
6661	TACGGTCAAT	cceccettte	TTCCCACGGA	CANTCCCACC	CCTTCTTACT	CCCTCACATT	6720
	TAATGTTGAT			CCAGACGCGA	ATTATTTTTG	ATGGCGTTCC	6780
	TATTGGTTAA				CGAATTTTAA		
6841	ACCTTTACAA	TTANATATT	TOCTTATACA		TTTTGGGGGCT		
6901	TCAACCGGG	TACATATCAT	TEACATECTA		TACCETTCAT		
6961	GTTTGCTCCA	CACTCTCACC	CAATGACCTG		TAGATETETE		
7021	ACCUTCICCG	CCATTAATTT	ATCAGCTAGA		ATCATATTCA		
7081	ACTGTCTCCG	CCCTTTCTCA	CCCTTTTGAA		CACATTACTC		
7141	TTTAAAATAT	ATGAGGETTC	TANAATTTT		TIGANATANA		
7201	GCAAAAGTAT	TACAGGETCA	TAATGETTET		ATTTACCTTT		
7261	CCTTTATTGC	TIAATTTTC	TANTECTER		ATGATTTATT		7317
	1 10		1 30	1 40	1 50	1 60	.341
	,	4 24	,	4 ,40	, 30	, 40	

FIGURE 4-1

	1 10	1 20	30	1 40	1 50	1 60	
1	AATGCTACTA	CTATTAGTAG	AATTGATGCC	ACCTTTTCAG	CTCGCGCCCC	AAATGAAAAT	60
61	ATAGCTAAAC	AGGITATIGA	CCATTTGCGA	AATGTATCTA	ATGGTCAAAC	TAAATCTACT	120
121	CGTTCGCAGA	ATTGGGAATC	AACTGTTACA	TGGAATGAAA	CTTCCAGACA	CCGTACTTTA	180
241	TCCCCARARA	TAAAACATGT	TGAGCTACAG	CACCAGATTC	AGCAATTAAG	CTCTAAGCCA	240
301	TTGGAGTTTC	TGACCTCTTA CTTCCGGTCT	TCAAAAGGAG	CAATTAAAGG	TACTCTCTAA	TCCTGACCTG	300
361	TCTTTCGGGC	TTCCTCTTAA	TOTTTTTTTT	GAAGCTCGAA	TTAAAACGCG	ATATTTGAAG	360
421	CAGGGTAAAG	ACCTGATTTT	TCATTTATCC	TCATTCTCT	TTGCTTCTGA	CTATAATAGT	420
481	TTTGAGGGG	ATTCAATGAA	TATTTATCAC	CATTCCCCAC	TITCTGAACT	GTTTAAAGCA TATCCAGTCT	480
541	AAACATTTTA	CTATTACCCC	CTCTGGCAAA	ACTTCTTTTC	CARAGECETE	TATCCAGTCT	540
601	GGTTTTTATC	GTCGTCTGGT	AAACGAGGGT	TATGATAGTG	TTGCTCTTAC	TATGCCTCGT	600
661	AATTCCTTTT	GGCGTTATGT	ATCTGCATTA	GTTGAATGTG	GTATTCCTAA	ATCTCAACTG	720
721	ATGAATCTTT	CTACCTGTAA	TAATGTTGTT	CCGTTAGTTC	GTTTTATTAA	CGTAGATTTT	780
781	TCTTCCCAAC	GTCCTGACTG	GTATAATGAG	CCAGTTCTTA	AAATCGCATA	AGGTAATTCA	840
841	CAATGATTAA	AGTTGAAATT	AAACCATCTC	AAGCCCAATT	TACTACTCGT	TCTGGTGTTT	900
901	CTCGTCAGGG	CAAGCCTTAT	TCACTGAATG	AGCAGCTTTG	TTACGTTGAT	TTGGGTAATG	960
1031	AATATCCGGT	TCTTGTCAAG	ATTACTCTTG	ATGAAGGTCA	GCCAGCCTAT	GCGCCTGGTC	1020
1021	GTCTCCCCCT	TCATCTGTCC CGTTCCGGCT	TCTTTCAAAG	TTGGTCAGTT	CGGTTCCCTT	ATGATTGACC	1080
1141	CAGGCGATCA	TACAAATCTC	AAGTAACATG	GAGCAGGTCG	CGGATTTCGA	CACAATTTAT	1140
1201	CAAAGATGAG	TGTTTTAGTG	TATTCTTTC	TGTTTCGCGC	TTGGTATAAT	CGCTGGGGGT	1200
1261	GTGGCATTAC	GTATTTTACC	CGTTTDATCC	AAACTTCCTC	TTTAGGTTGG	TGCCTTCGTA	1260
1321	CAAAGCCTCT	GTAGCCGTTG	CTACCCTCGT	TOCCATOCTO	ATGAAAAAGT	CTTTAGTCCT CTGAGGGTGA	1320
1381	CGATCCCGCA	AAAGCGGCCT	TTAACTCCCT	GCAAGCCTCA	CCACCCAAT	ATATCGGTTA	1380
1441	TGCGTGGGCG	ATGGTTGTTG	TCATTGTCGG	CGCAACTATC	GGTATCAACC	TGTTTAAGAA	1500
1501	ATTCACCTCG	AAAGCAAGCT	GATAAACCGA	TACAATTAAA	GGCTCCTTTT	GGAGCCTTTT	1560
1561	TTTTTGGAGA	TTTTCAACGT	GAAAAAATTA	TTATTCGCAA	TTCCTTTAGT	TGTTCCTTTC	1620
1621	TATTCTCACT	CCGCTGAAAC	TGTTGAAAGT	TGTTTAGCAA	AACCCCATAC	AGAAAATTCA	1680
1681	TTTACTAACG	TCTGGAAAGA	CGACAAAACT	TTAGATCGTT	ACGCTAACTA	TGAGGGTTGT	1740
1/91	CTGTGGAATG	CTACAGGCGT	TGTAGTTTGT	ACTGGTGACG	AAACTCAGTG	TTACGGTACA	1800
1861	TOTOLOGIA	TTGGGCTTGC GCGGTTCTGA	TATCCCTGAA	AATGAGGGTG	GTGGCTCTGA	GGGTGGCGGT	1860
1921	ATTCCGGGCT	ATACTTATAT	GGGTGGCGGT	ACTAAACCTC	CTGAGTACGG	TGATACACCT	1920
1981	AACCCCGCTA	ATCCTAATCC	TTCTCTTCAC	GACGGCACTT	ATCCGCCTGG	TACTGAGCAA	1980
2041	CAGAATAATA	GGTTCCGAAA	TAGGCAGGGG	GROTCICAGE	CTCTTAATAC	TTTCATGTTT CACTGTTACT	2040
2101	CAAGGCACTG	ACCCCGTTAA	AACTTATTAC	CAGTACACTC	CTCTATCATC	AAAAGCCATG	2100
2161	TATGACGCTT	ACTGGAACGG	TAAATTCAGA	GACTGCGCTT	TCCATTCTGG	CTTTAATGAA	2220
2221	GATCCATTCG	TTTGTGAATA	TCAAGGCCAA			TCCTGTCAAT	
2281	GCTGGCGGCG	GCTCTGGTGG	TGGTTCTGGT	GGCGGCTCTG	AGGGTGGTGG	CTCTGAGGGT	2340
2341	GGCGGTTCTG	AGGGTGGCGG	CTCTGAGGGA	GGCGGTTCCG	GTGGTGGCTC	TGGTTCCGGT	2400
2401	GATTTTGATT	ATGAAAAGAT	GGCAAACGCT	AATAAGGGGG	CTATGACCGA	AAATGCCGAT	2460
2461	GAAAACGCGC	TACAGTCTGA	'CGCTAAAGGC	AAACTTGATT	CTGTCGCTAC	TGATTACGGT	2520
2521	GCTGCTATCG	ATGGTTTCAT'CTGGCTCTAA	TGGTGACGTT	TCCGGCCTTG	CTAATGGTAA	TGGTGCTACT	2580
2643	TTAATCAATA	ATTTCCGTCA	TTCCCAAATG	GCTCAAGTCG	GTGACGGTGA	TAATTCACCT	2640
2701	TTTGTCTTTA	GCGCTGGTAA	ACCATATCAA	TCCCTCCCTC	AATCGGTTGA	ATGTCGCCCT	2700
2761	TTCCGTGGTG	TCTTTGCGTT	TCTTTTATAT	CTTCCCACCT	ATTGTGACAA	AATAAACTTA	2760
2821	TTTGCTAACA	TACTGCGTAA	TAAGGAGTCT	TAATCATCCC	ACTTOTATGT	ATTTTCTACG GGTATTCCGT	2820
2881	TATTATTGCG	TTTCCTCGGT	TTCCTTCTGG	TAACTTTGTT	CGCCTATCTC	CTTACTTTTC	2880
2941	TTAAAAAGGG	CTTCGGTAAG	ATAGCTATTG	CCTGTTTCTT	GCTCTTATTA	TTGGGCTTAA	3000
3001	CTCAATTCTT	GTGGGTTATC	TCTCTGATAT	TAGCGCTCAA	TTACCCTCTG	ACTITGTICA	3060
3061	GGGTGTTCAG	TTAATTCTCC	CGTCTAATGC	GCTTCCCTGT	TTTTATGTTA	TTCTCTCTGT	3120
3121	AAAGGCTGCT	ATTTTCATTT	TTGACGTTAA	ACAAAAAATC	GTTTCTTATT	TGGATTGGGA	3180
3181	TAAATAATAT	GGCTGTTTAT	TTTGTAACTG	GCAAATTAGG	CTCTGGAAAG	ACGCTCGTTA	3240
3301	GCGTTGGTAA	GATTCAGGAT	AAAATTGTAG	CTGGGTGCAA	AATAGCAACT	AATCTTGATT	3300
3361	TACCCCARE	AAACCTCCCG GCCTTCTATA	CAAGTCGGGA	GGTTCGCTAA	AACGCCTCGC	GTTCTTAGAA	3360
3421	ATGABABATA	AAACGGCTTG	CTTGATTTGC	TTGCTATTGG	GCGCGGTAAT	GATTCCTACG	3420
3481	CTTGGAATCA	TAAGGAAAGA	CACCCAMME	ATGAGTGCGG	TACTTGGTTT	AATACCCGTT	3480
3541	GATGGGATAT	TATTTTTCTT	GTTCACCACT	TATCTATECT	TCTACATGCT	CGTAAATTAG	3540
3601	CATTAGCTGA	ACATGTTGTT	TATTGTCCTC	GTCTCCACAC	TGATAAACAG	GCGCGTTCTG CCTTTTGTCG	3600
3661	GTACTTTATA	TTCTCTTATT	ACTGGCTCGA	AAATGCCTCT	CCCTABATTA	CATGTTGGCG	3560
3721	TTGTTAAATA	TGGCGATTCT	CAATTAAGCC	CTACTGTTCA	GCGTTGGCTT	TATACTGGTA	3720
3781	AGAATTTGTA	TAACGCATAT	GATACTAAAC	AGGCTTTTTC	TAGTAATTAT	GATTCCGGTG	3840

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3841 ITTATICITA ITTAACGCCI TATITATCAC ACGGTCGGTA TITCAAACCA ITAAATITAG 3900
3901 GTCAGAAGAT GAAGCTTACT AAAATATATT TGAAAAAGTT TTCACGCGTT CTTTGTCTTG 3960
3961 CGATTGGATT TGCATCAGCA TITACATATA GTTATATAAC CCAACCTAAG CCGGAGGTTA 4020
4021 AAAAGGTAGT CTCTCAGACC TATGATTTTG ATAAATTCAC TATTGACTCT TCTCAGCGTC 4080
4081 TTAATCTAAG CTATCGCTAT GTTTTCAAGG
                                      ATTCTAAGGG AAAATTAATT AATAGCGACG 4140
4141 ATTTACAGAA GCAAGGTTAT TCACTCACAT ATATTGATTT ATGTACTGTT TCCATTAAAA 4200
4201 AAGGTAATTC AAATGAAATT GTTAAATGTA ATTAATTTTG TTTTCTTGAT GTTTGTTTCA 4260
4261 TCATCTTCTT TTGCTCAGGT AATTGAAATG AATAATTCGC CTCTGCGCGA TTTTGTAACT 4320
4321 TGGTATTCAA AGCAATCAGG CGAATCCGTT ATTGTTTCTC CCGATGTAAA AGGTACTGTT 4380
4381 ACTGTATATT CATCTGACGT TAAACCTGAA AATCTACGCA ATTTCTTTAT TTCTGTTTTA 4440
4441 CGTGCTAATA ATTTTGATAT GGTTGGTTCA ATTCCTTCCA TAATTCAGAA GTATAATCCA 4500
4501 AACAATCAGG ATTATATTGA TGAATTGCCA TCATCTGATA ATCAGGAATA TGATGATAAT 4560
4561 TCCGCTCCTT CTGGTGGTTT CTTTGTTCCG
                                     CAAAATGATA ATGTTACTCA AACTTTTAAA 4620
4621 ATTAATAACG TTCGGGCAAA GGATTTAATA CGAGTTGTCG AATTGTTTGT AAAGTCTAAT 4680
4681 ACTICTAAAT CCTCAAATGT ATTATCTATT GACGGCTCTA ATCTATTAGT TGTTAGTGCA 4740
4741 CCTAAAGATA TTTTAGATAA CCTTCCTCAA TTCCTTTCTA CTGTTGATTT GCCAACTGAC 4800
4801 CAGATATIGA TIGAGGGTTT GATATITGAG GTTCAGCAAG GTGATGCTTT AGATTTTTCA 4860
4861 TTTGCTGCTG GCTCTCAGCG TGGCACTGTT
                                     GCAGGCGGTG TTAATACTGA CCGCCTCACC 4920
4921 TCTGTTTTAT CTTCTGCTGG TGGTTCGTTC GGTATTTTTA ATGGCGATGT TTTAGGGCTA 4980
4981 TCAGTTCGCG CATTAAAGAC TAATAGCCAT TCAAAAATAT TGTCTGTGCC ACGTATTCTT 5040
5041 ACGCTTTCAG GTCAGAAGGG TTCTATCTCT GTTGGCCAGA ATGTCCCTTT TATTACTGGT 5100
5101 CGTGTGACTG GTGAATCTGC CAATGTAAAT AATCCATTTC AGACGATTGA GCGTCAAAAT 5160
5161 GTAGGTATTT CCATGAGCGT TTTTCCTGTT GCAATGGCTG GCGGTAATAT TGTTCTGGAT 5220
5221 ATTACCAGCA AGGCCGATAG TITGAGTTCT TCTACTCAGG CAAGTGATGT TATTACTAAT 5280
5281 CAAAGAAGTA TTGCTACAAC GGTTAATTTG CGTGATGGAC AGACTCTTTT ACTCGGTGGC 5340
5341 CTCACTGATT ATAAAAACAC TTCTCAAGAT TCTGGCGTAC CGTTCCTGTC TAAAATCCCT 5400
5401 TTAATCGGCC TCCTGTTTAG CTCCCGCTCT GATTCCAACG AGGAAAGCAC GTTATACGTG 5460
5461 CTCGTCAAAG CAACCATAGT ACGCGCCCTG TAGCGGCGCA TTAAGCGCGG CGGGTGTGGT 5520
5521 GGTTACGCGC AGCGTGACCG CTACACTTGC CAGCGCCCTA GCGCCCGCTC CTTTCGCTTT 5580
5581 CTTCCCTTCC TTTCTCGCCA CGTTCGCCGG CTTTCCCCGT CAAGCTCTAA ATCGGGGGCT 5640
5641 CCCTTTAGGG TTCCGATTTA GTGCTTTACG GCACCTCGAC CCCAAAAAAC TTGATTTGGG 5700
5701 TGATGGTTCA CGTAGTGGGC CATCGCCCTG ATAGACGGTT TTTCGCCCTT TGACGTTGGA 5760
5761 GTCCACGTTC TTTAATAGTG GACTCTTGTT CCAAACTGGA ACAACACTCA ACCCTATCTC 5820
5821 GGGCTATTCT TTTGATTTAT AAGGGATTTT GCCGATTTCG GAACCACCAT CAAACAGGAT 5880
5881 TTTCGCCTGC TGGGGCAAAC CAGCGTGGAC CGCTTGCTGC AACTCTCTCA GGGCCAGGCG 5940
5941 GTGAAGGGCA ATCAGCTGTT GCCCGTCTCG CTGGTGAAAA GAAAAACCAC CCTGGCGCCC 6000
6001 AATACGCAAA CCGCCTCTCC CCGCGCGTTG GCCGATTCAT TAATGCAGCT GGCACGACAG 6060
6061 GTTTCCCGAC TGGAAAGCGG GCAGTGAGCG CAACGCAATT AATGTGAGTT AGCTCACTCA 6120
6121 TTAGGCACCC CAGGCTTTAC ACTITATGCT TCCGGCTCGT ATGTTGTGTG GAATTGTGAG 6180
6181 CGGATAACAA TTTCACACGC CAAGGAGACA GTCATAATGA AATACCTATT GCCTACGGCA 6240
6241 GCCGCTGGAT TGTTATTACT CGCTGCCCAA CCAGCCATGG CCGAGCTCTT CCCGCCATCT 6300
6301 GATGAGCAGT TGAAATCTGG AACTGCCTCT GTTGTGTGCC TGCTGAATAA CTTCTATCCC 6360
6361 AGAGAGGCCA AAGTACAGTG GAAGGTGGAT AACGCCCTCC AATCGGGTAA CTCCCAGGAG 6420
6421 AGTGTCACAG AGCAGGACAG CAAGGACAGC ACCTACAGCC TCAGCAGCAC CCTGACGCTG 6480
6481 AGCAAAGCAG ACTACGAGAA ACACAAAGTC TACGCCTGCG AAGTCACCCA TCAGGGCCTG 6540
6541 AGCTCGCCCG TCACAAAGAG CTTCAACAGG GGAGAGTGTT CTAGAACGCG TCACTTGGCA 6600
6601 CTGGCCGTCG TTTTACAACG TCGTGACTGG GAAAACCCTG GCGTTACCCA AGCTTAATCG 6660
6661 CCTTGCAGAA TTCCCTTTCG CCAGCTGGCG TAATAGCGAA GAGGCCCGCA CCGATCGCCC 6720
6721 TTCCCAACAG TTGCGCAGCC TGAATGGCGA ATGGCGCTTT GCCTGGTTTC CGGCACCAGA 6780
6781 AGCGGTGCCG GAAAGCTGGC TGGAGTGCGA
                                     TCTTCCTGAG GCCGATACGG TCGTCGTCCC 6840
6841 CTCAAACTGG CAGATGCACG GTTACGATGC GCCCATCTAC ACCAACGTAA CCTATCCCAT 6900
6901 TACGGTCAAT CCGCCGTTTG TTCCCACGGA GAATCCGACG GGTTGTTACT CGCTCACATT 6960
6961 TAATGTTGAT GAAAGCTGGC TACAGGAAGG CCAGACGCGA ATTATTTTTG ATGGCGTTCC 7020
7021 TATTGGTTAA AAAATGAGCT GATTTAACAA AAATTTAACG CGAATTTTAA CAAAATATTA 7080
7081 ACGITTACAA TITAAATATI TGCTTATACA ATCTTCCTGT TTTTGGGGCT TTTCTGATTA 7140
7141 TCAACCGGGG TACATATGAT TGACATGCTA GTTTTACGAT TACCGTTCAT CGATTCTCTT 7200
7201 GTTTGCTCCA GACTCTCAGG CAATGACCTG ATAGCCTTTG TAGATCTCTC AAAAATAGCT 7260
7261 ACCCTCTCCG GCATTAATTT ATCAGCTAGA ACGGTTGAAT ATCATATTGA TGGTGATTTG 7320
7321 ACTGTCTCCG GCCTTTCTCA CCCTTTTGAA TCTTTACCTA CACATTACTC AGGCATTGCA 7380
7381 TTTAAAATAT ATGAGGGTTC TAAAAATTTT TATCCTTGCG TTGAAATAAA GGCTTCTCCC 7440
7441 GCAAAAGTAT TACAGGGTCA TAATGTTTTT GGTACAACCG ATTTAGCTTT ATGCTCTGAG 7500
7501 GCTTTATTGC TTAATTTTGC TAATTCTTTG CCTTGCCTGT ATGATTTATT GGATGTT 7557
        1 10
                 1 20 1 30
                                        1 40 1 50 1
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FIGURE 5-1

10 1 20 1 30 1 40 1 AATGCTACTA CTATTAGTAG AATTGATGCC ACCTTTTCAG CTCGCGCCCC AAATGAAAAT 60 61 ATAGCTAAAC AGGTTATTGA CCATTTGCGA AATGTATCTA ATGGTCAAAC TAAATCTACT 120 121 CGTTCGCAGA ATTGGGAATC AACTGTTACA TGGAATGAAA CTTCCAGACA CCGTACTTTA 180 181 GTTGCATATT TAAAACATGT TGAGCTACAG CACCAGATTC AGCAATTAAG CTCTAAGCCA 240 241 TCTGCAAAAA TGACCTCTTA TCAAAAGGAG CAATTAAAGG TACTCTCTAA TCCTGACCTG 300 301 TTGGAGTTTG CTTCCGGTCT GGTTCGCTTT GAAGCTCGAA TTAAAACGCG ATATTTGAAG 360 361 TCTTTCGGGC TTCCTCTTAA TCTTTTTGAT GCAATCCGCT TTGCTTCTGA CTATAATAGT 420 421 CAGGGTAAAG ACCTGATTTT TGATTTATGG TCATTCTCGT TTTCTGAACT GTTTAAAGCA 480 481 TTTGAGGGG ATTCAATGAA TATTTATGAC GATTCCGCAG TATTGGACGC TATCCAGTCT 540 541 AAACATTTTA CTATTACCCC CTCTGGCAAA ACTTCTTTTG CAAAAGCCTC TCGCTATTTT 600 601 GGTTTTTATC GTCGTCTGGT AAACGAGGGT TATGATAGTG TTGCTCTTAC TATGCCTCGT 660 661 AATTCCTTTT GGCGTTATGT ATCTGCATTA GTTGAATGTG GTATTCCTAA ATCTCAACTG 720 721 ATGAATCTTT CTACCTGTAA TAATGTTGTT CCGTTAGTTC GTTTTATTAA CGTAGATTTT 780 781 TCTTCCCAAC GTCCTGACTG GTATAATGAG CCAGTTCTTA AAATCGCATA AGGTAATTCA 840 841 CAATGATTAA AGTTGAAATT AAACCATCTC AAGCCCAATT TACTACTCGT TCTGGTGTTT 900 901 CTCGTCAGGG CAAGCCTTAT TCACTGAATG AGCAGCTTTG TTACGTTGAT TTGGGTAATG 960 961 AATATCCGGT TCTTGTCAAG ATTACTCTTG ATGAAGGTCA GCCAGCCTAT GCGCCTGGTC 1020 1021 TGTACACCGT TCATCTGTCC TCTTTCAAAG TIGGTCAGTT CGGTTCCCTT ATGATTGACC 1080 1081 GTCTGCGCCT CGTTCCGGCT AAGTAACATG GAGCAGGTCG CGGATTTCGA CACAATTTAT 1140 1141 CAGGCGATGA TACAAATCTC CGTTGTACTT TGTTTCGCGC TTGGTATAAT CGCTGGGGGT 1200 1201 CAAAGATGAG TGTTTTAGTG TATTCTTTCG CCTCTTTCGT TTTAGGTTGG TGCCTTCGTA 1260 1261 GTGGCATTAC GTATTTTACC CGTTTAATGG AAACTTCCTC ATGAAAAAGT CTTTAGTCCT 1320 1321 CAAAGCCTCT GTAGCCGTTG CTACCCTCGT TCCGATGCTG TCTTTCGCTG CTGAGGGTGA 1380 1381 CGATCCCGCA AAAGCGGCCT TTAACTCCCT GCAAGCCTCA GCGACCGAAT ATATCGGTTA 1440 1441 TGCGTGGGCG ATGGTTGTTG TCATTGTCGG CGCAACTATC GGTATCAAGC TGTTTAAGAA 1500 1501 ATTCACCTCG AAAGCAAGCT GATAAACCGA TACAATTAAA GGCTCCTTTT GGAGCCTTTT 1560 1561 TTTTTGGAGA TTTTCAACGT GAAAAAATTA TTATTCGCAA TTCCTTTAGT TGTTCCTTTC 1620 1621 TATTCTCACT CCGCTGAAAC TGTTGAAAGT TGTTTAGCAA AACCCCATAC AGAAAATTCA 1680 1681 TTTACTAACG TCTGGAAAGA CGACAAAACT TTAGATCGTT ACGCTAACTA TGAGGGTTGT 1740 1741 CTGTGGAATG CTACAGGCGT TGTAGTTTGT ACTGGTGACG AAACTCAGTG TTACGGTACA 1800 1801 TGGGTTCCTA TTGGGCTTGC TATCCCTGAA AATGAGGGTG GTGGCTCTGA GGGTGGCGGT 1860 1861 TCTGAGGGTG GCGGTTCTGA GGGTGGCGGT ACTAAACCTC CTGAGTACGG TGATACACCT 1920 1921 ATTCCGGGCT ATACTTATAT CAACCCTCTC GACGGCACTT ATCCGCCTGG TACTGAGCAA 1980 1981 AACCCCGCTA ATCCTAATCC TTCTCTTGAG GAGTETCAGE CTETTAATAC TITCATGTTT 2040 2041 CAGAATAATA GGTTCCGAAA TAGGCAGGGG GCATTAACTG TTTATACGGG CACTGTTACT 2100 2101 CAAGGCACTG ACCCCGTTAA AACTTATTAC CAGTACACTC CTGTATCATC AAAAGCCATG 2160 2161 TATGACGCTT ACTGGAACGG TAAATTCAGA GACTGCGCTT TCCATTCTGG CTTTAATGAA 2220 2221 GATCCATTCG TTTGTGAATA TCAAGGCCAA TCGTCTGACC TGCCTCAACC TCCTGTCAAT 2280 2281 GCTGGCGGCG GCTCTGGTGG TGGTTCTGGT GGCGGCTCTG AGGGTGGTGG CTCTGAGGGT 2340 2341 GGCGGTTCTG AGGGTGGCGG CTCTGAGGGA GGCGGTTCCG GTGGTGGCTC TGGTTCCGGT 2400 2401 GATTTTGATT ATGAAAAGAT GGCAAACGCT AATAAGGGGG CTATGACCGA AAATGCCGAT 2460 2461 GAAAACGCGC TACAGTCTGA CCCTAAAGGC AAACTTGATT CTGTCGCTAC TGATTACGGT 2520 2521 GCTGCTATCG ATGGTTTCAT TGGTGACGTT TCCGGCCTTG CTAATGGTAA TGGTGCTACT 2580 2581 GGTGATTTTG CTGGCTCTAA TTCCCAAATG GCTCAAGTCG GTGACGGTGA TAATTCACCT 2640 2641 TTAATGAATA ATTTCCGTCA ATATTTACCT TCCCTCCCTC AATCGGTTGA ATGTCGCCCT 2700 2701 TTTGTCTTTA GCGCTGGTAA ACCATATGAA TTTTCTATTG ATTGTGACAA AATAAACTTA 2760 2761 TTCCGTGGTG TCTTTGCGTT TCTTTTATAT GTTGCCACCT TTATGTATGT ATTTTCTACG 2820 2821 TTTGCTAACA TACTGCGTAA TAAGGAGTCT TAATCATGCC AGTTCTTTTG GGTATTCCGT 2880 2881 TATTATTGCG TTTCCTCGGT TTCCTTCTGG TAACTTTGTT CGGCTATCTG CTTACTTTTC 2940 2941 TTAAAAAGGG CTTCGGTAAG ATAGCTATTG CTATTTCATT GTTTCTTGCT CTTATTATTG 3000 3001 GGCTTAACTC AATTCTTGTG GGTTATCTCT CTGATATTAG CGCTCAATTA CCCTCTGACT 3060 3061 TTGTTCAGGG TGTTCAGTTA ATTCTCCCGT CTAATGCGCT TCCCTGTTTT TATGTTATTC 3120 3121 TCTCTGTAAA GGCTGCTATT TTCATTTTTG ACGTTAAACA AAAAATCGTT TCTTATTTGG 3180 3181 ATTGGGATAA ATAATATGGC TGTTTATTTT GTAACTGGCA AATTAGGCTC TGGAAAGACG 3240 3241 CTCGTTAGCG TTGGTAAGAT TCAGGATAAA ATTGTAGCTG GGTGCAAAAT AGCAACTAAT 3300 3301 CTTGATTTAA GGCTTCAAAA CCTCCCGCAA GTCGGGAGGT TCGCTAAAAC GCCTCGCGTT 3360 3361 CTTAGAATAC CGGATAAGCC TTCTATATCT GATTTGCTTG CTATTGGGCG CGGTAATGAT 3420 3421 TCCTACGATG AAAATAAAAA CGGCTTGCTT GTTCTCGATG AGTGCGGTAC TTGGTTTAAT 3480 3481 ACCCGTTCTT GGAATGATAA GGAAAGACAG CCGATTATTG ATTGGTTTCT ACATGCTCGT 3540 3541 AAATTAGGAT GGGATATTAT TTTTCTTGTT CAGGACTTAT CTATTGTTGA TAAACAGGCG 3600 3601 CGTTCTGCAT TAGCTGAACA TGTTGTTTAT TGTCGTCGTC TGGACAGAAT TACTTTACCT 3660 3661 TTTGTCGGTA CTTTATATTC TCTTATTACT GGCTCGAAAA TGCCTCTGCC TAAATTACAT 3720 3721 GTTGGCGTTG TTAAATATGG CGATTCTCAA TTAAGCCCTA CTGTTGAGCG TTGGCTTTAT 3780 3781 ACTGGTAAGA ATTTGTATAA CGCATATGAT ACTAAACAGG CTTTTTCTAG TAATTATGAT 3840

IX34

FIGURE 5-2

3841	TCCGGTGTTT	ATTCTTATTT	AACGCCTTAT	TTATCACACG	GTCGGTATTT	CAAACCATTA	3000
3901	AATTTAGGTC	AGAAGATGAA	GCTTACTAAA		AAAAGTTTTC		
3961	TGTCTTGCGA	TTGGATTTGC	ATCAGCATTT				
4021	GAGGTTAAAA	AGGTAGTCTC	TCACACCTAT		ATATAACCCA		
4081	CAGCGTCTTA	ATOMA ACCES	TCAGACCIAI		AATTCACTAT		
4141	CUGCOICTIM	AICIAAGC.A	TCGCTATGTT		CTAAGGGAAA		
4141	AGCGACGATT	TACAGAAGCA	AGGTTATTCA	CTCACATATA	TTGATTTATG	TACTGTTTCC	4200
4201	ATTAAAAAAG	GTAATTCAAA	TGAAATTGTT	AAATGTAATT	AATTTTGTTT	TCTTGATGTT	4260
4261	TGTTTCATCA	TCTTCTTTTG	CTCAGGTAAT		AATTCGCCTC		
4321	TGTAACTTGG	TATTCAAAGC	AATCAGGCGA		GTTTCTCCCG		
4381	TACTGTTACT	GTATATTCAT	CTGACGTTAA				
4441	TGTTTTACGT	GCTAATAATT	TTCATATCCT		CTACGCAATT		
4501	TAATCCAAAC	AATCAGGATT	A TATTO TO TO		CCTTCCATAA		
4561	TGATAATTCC	CCTCCTTCCT	AINIIGAIGA		TCTGATAATC		
4631	TORINATICE	GCTCCTTCTG	GIGGITTETT		AATGATAATG		
4021	TTTTAAAATT	AATAACGTTC	GGGCAAAGGA	TTTAATACGA	GTTGTCGAAT	TGTTTGTAAA	4680
4681	GTCTAATACT	TCTAAATCCT	CAAATGTATT	ATCTATTGAC	GGCTCTAATC	TATTAGTTGT	4740
4741	TAGTGCACCT	AAAGATATTT	TAGATAACCT	TCCTCAATTC	CTTTCTACTG	TTGATTTGCC	4800
4801	AACTGACCAG	ATATTGATTG	AGGGTTTGAT	ATTTGAGGTT	CAGCAAGGTG	ATCCTTTACA	4960
4861	TTTTTCATTT	GCTGCTGGCT	CTCAGCGTGG	CACTETTECA	GGCGGTGTTA	ATTOCITION	4000
4921	CCTCACCTCT	GTTTTATCTT	CTGCTGGTGG				
4981	AGGGCTATCA	GTTCCCCCAT	TARACTORIS		ATTTTTAATG		
5041	TATTCTTACG	CTTTCGCGCAI	IAAAGACTAA		AAAATATTGT		
5101	TATICITACG	CITICAGGIC	AGAAGGGTTC		GGCCAGAATG		
2101	TACTGGTCGT	GTGACTGGTG	AATCTGCCAA	TGTAAATAAT	CCATTTCAGA	CGATTGAGCG	5160
5161	TCAAAATGTA	GGTATTTCCA	TGAGCGTTTT		ATGGCTGGCG		
5221	TCTGGATATT	ACCAGCAAGG	CCGATAGTTT		ACTCAGGCAA		
5281	TACTAATCAA	AGAAGTATTG	CTACAACGGT	TAATTTGCGT	GATGGACAGA	CTCTTTTTACT	5240
5341	CGGTGGCCTC	ACTGATTATA	AAAACACTTC		GGCGTACCGT		
5401	AATCCCTTTA	ATCGGCCTCC	TCTTTACCTC				
5461	ATACGTGCTC	GTCBAAGCAA	CCRTACTRCC		TCCAACGAGG		
5521	GTGTGGTGGT	TACCCCCACC	CONTROLING		CGGCGCATTA		
5501	TOTOTOGI	CCCCCCAGC	GIGACCGCTA	CACTTGCCAG	CGCCCTAGCG	CCCGCTCCTT	5580
5541	TCGCTTTCTT	CCCTTCCTTT	CTCGCCACGT	TCGCCGGCTT	TCCCCGTCAA	GCTCTAAATC	5640
2641	GGGGGCTCCC	TTTAGGGTTC	CGATTTAGTG	CTTTACGGCA	CCTCGACCCC	AAAAAACTTG	5700
5701	ATTTGGGTGA	TGGTTCACGT	AGTGGGCCAT	CGCCCTGATA	GACGGTTTTT	CGCCCTTTGA	5760
5761	CGTTGGAGTC	CACGTTCTTT	AATAGTGGAC		AACTGGAACA		
5821	CTATCTCGGG	CTATTCTTTT	GATTTATAAG	GGATTTTCCC	GATTTCGGAA	CCLCCLCAACC	5020
5881	ACAGGATTTT	CCCCTCCTCC	GGCAAACCAC	CCTCCLCCC	CATTICGGAA	CCACCATCAA	2880
5941	CCAGGCGGTG	AAGGGCAATC	ACCTCTTCCC	COTOGACCOC	TTGCTGCAAC	TCTCTCAGGG	5940
6001	GGCGCCCAAT	ACCCARACCC	CCTCTCTCCC		GTGAAAAGAA		
6061	ACGACAGGTT	TCCCCAAACCG	CCICICCCC		GATTCATTAA		
6121	TCICTCICTCI	CCCCGACTGG	AAAGCGGGCA	GTGAGCGCAA	CGCAATTAAT	GTGAGTTAGC	6120
6121	TCACTCATTA	GGCACCCCAG	GCTTTACACT	TTATGCTTCC	GGCTCGTATG	TTGTGTGGAA	6180
9181	TTGTGAGCGG	ATAACAATTT	CACACGCGTC		GGCCGTCGTT		
6241	GTGACTGGGA	AAACCCTGGC	GTTACCCAAG		GGAGAAAATA		
6301	AAGCACTATT	GCACTGGCAC	TCTTACCGTT	ACTGTTTACC	CCTGTGGCAA	AAGCCCAGGT	6360
63 6 1	CCAGCTGCTC	GAGTCGGTCT	TCCCCCTGGC	ACCCTCCTCC	AAGAGCACCT	CTGGGGGGGAG	6420
6421	AGCGGCCCTG	GGCTGCCTGG	TCAAGACTAA		CGGTGACGGT		
6481	TCAGGCGCCC	TGACCAGCGG	CCTCCACACC				
6541	TACTCCCTCA	CCACCCTCCT	CACCCCCCC		TCCTACAGTC		
6601	TGCAACGTGA	ATCACALGGE	GACCOLGCCC	CCAGCAGCT	TGGGCACCCA	GACCTACATC	6600
6661	TOTALOGICA	CARROTAGE	CAGCAACACC	AAGGTGGACA	AGAAAGCAGA	GCCCAAATCT	6660
6324	TGTACTAGTG	GATECTACCC	GTACGACGTT	CCGGACTACG	CTTCTTAGGC	TGAAGGCGAT	6720
0/21	GACCCTGCTA	AGGETGCATT	CAATAGTTTA	CAGGCAAGTG	CTACTGAGTA	CATTGGCTAC	6780
6/81	GCTTGGGCTA	TGGTAGTAGT	TATAGTTGGT	GCTACCATAG	GGATTAAATT	ATTCAAAAAG	6840
6841	TTTACGAGCA	AGGCTTCTTA	AGCAATAGCG		CACCGATCGC		
6901	AGTTGCGCAG	CCTGAATGGC	GAATGGCGCT	TICCCTCCTT	TCCGGCACCA	CARCCCCAC	6060
6 96 1	CGGAAAGCTG	GCTGGAGTGC	GATCTTCCTG	AGGCCCATAC	GGTCGTCGTC	COUNCERE SEC	7000
7021	GGCAGATGCA	CGGTTACGAT	CCCCCATCT	ACACCARCO	GGICGICGIC	CCCTCAAACT	1020
7083	ATCCGCCGTT	TGTTCCCAC	CACAATCCC	COCCETACGT	AACCTATCCC	ATTACGGTCA	7080
7141	ATGAAAGCTG	CCELCLACG	GAGAAICCGA	CGGGTTGTTA	CTCGCTCACA	TTTAATGTTG	7140
7201	TIGHTWOCIG	CTALAGGAA	GGCCAGACGC	GAATTATTTT	TGATGGCGTT	CCTATTGGTT	7200
722	AAAAAATGAG	CIGATTTAAC	AAAAATTTAA	CGCGAATTTT	AACAAAATAT	TAACGTTTAC	7260
1201	AATTTAAATA	TITGCTTATA	CARTCTTCCT	GTTTTTGGGG	CTTTTCTGAT	TATCAACCGG	7320
/321	GGTACATATG	ATTGACATGC	TAGTTTTACG	ATTACCGTTC	ATCGATTCTC	TIGITICCIC	7380
7381	CAGACTCTCA	GGCAATGACC	TGATAGCCTT	TGTAGATOTO	TCAAAAATAG	CTACCCTCTC	7640
7441	CGGCATTAAT	TTATCAGCTA	GAACGGTTCA	ATATCATATT	GATGGTGATT	TCACTCTCTC	7500
7501	CGGCCTTTCT	CACCCTTTTC	AATCTTTACC	TACACATTA	TCACCCAME	CAMMONA	7500
7561	ATATGAGGGT	TCTAAAAATT	TTTATCCTTC	COMMONTAC	TCAGGCATTG	CATTTAAAAT	/560
7621	ATTACAGGGT	CATAATCTTT	TTCCTROLLG	CGLIGAAATA	AAGGCTTCTC	CCGCAAAAGT	7620
7691	GCTTAATTTT	CCTAATEGET	TIGGIACAAC	CGATTTAGCT	TTATGCTCTG	AGGCTTTATT	7680
				GTATGATTTA			7729
	1 10	1 20	1 30	1 40	1 50	1 60	

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1.0 20 30 40 1 50 AATGCTACTA CTATTAGTAG AATTGATGCC ACCITITCAG CICGCGCCCC AAAIGAAAAI 60 61 ATAGCTAAAC AGGTTATTGA CCATTTGCGA AATGTATCTA ATGGTCAAAC TAAATCTACT 120 121 CGTTCGCAGA ATTGGGAATC AACTGTTACA TGGAATGAAA CTTCCAGACA CCGTACTTTA 180 181 GTTGCATATT TAAAACATGT TGAGCTACAG CACCAGATTC AGCAATTAAG CTCTAAGCCA 240 241 TCTGCAAAAA TGACCTCTTA TCAAAAGGAG CAATTAAAGG TACTCTCTAA TCCTGACCTG 300 301 TTGGAGTTTG CTTCCGGTCT GGTTCGCTTT GAAGCTCGAA TTAAAACGCG ATATTTGAAG 360 361 TCTTTCGGGC TTCCTCTTAA TCTTTTTGAT GCAATCCGCT TTGCTTCTGA CTATAATAGT 420 421 CAGGGTAAAG ACCTGATTTT TGATTTATGG TCATTCTCGT TTTCTGAACT GTTTAAAGCA 480 481 TTTGAGGGGG ATTCAATGAA TATTTATGAC GATTCCGCAG TATTGGACGC TATCCAGTCT 540 541 AAACATTTTA CTATTACCCC CTCTGGCAAA ACTICITITG CAAAAGCCIC TCGCTATTIT 600 601 GGTTTTTATC GTCGTCTGGT AAACGAGGGT TATGATAGTG TTGCTCTTAC TATGCCTCGT 660 661 AATTCCTTTT GGCGTTATGT ATCTGCATTA GTTGAATGTG GTATTCCTAA ATCTCAACTG 720 721 ATGAATCTTT CTACCTGTAA TAATGTTGTT CCGTTAGTTC GTTTTATTAA CGTAGATTTT 780 781 TCTTCCCAAC GTCCTGACTG GTATAATGAG CCAGTTCTTA AAATCGCATA AGGTAATTCA 840 841 CAATGATTAA AGTTGAAATT AAACCATCTC AAGCCCAATT TACTACTCGT TCTGGTGTTT 900 901 CTCGTCAGGG CAAGCCTTAT TCACTGAATG AGCAGCTTTG TTACGTTGAT TTGGGTAATG 960 961 AATATCCGGT TCTTGTCAAG ATTACTCTTG ATGAAGGTCA GCCAGCCTAT GCGCCTGGTC 1020 1021 TGTACACCGT TCATCTGTCC TCTTTCAAAG TTGGTCAGTT CGGTTCCCTT ATGATTGACC 1080 1081 GTCTGCGCCT CGTTCCGGCT AAGTAACATG GAGCAGGTCG CGGATTTCGA CACAATTTAT 1140 1141 CAGGCGATGA TACAAATCTC CGTTGTACTT TGTTTCGCGC TTGGTATAAT CGCTGGGGGT 1200 1201 CAAAGATGAG TGTTTTAGTG TATTCTTTCG CCTCTTTCGT TTTAGGTTGG TGCCTTCGTA 1260 1261 GTGGCATTAC GTATTTTACC CGTTTAATGG AAACTICCIC ATGAAAAAGT CTTTAGTCCT 1320 1321 CAAAGCCTCT GTAGCCGTTG CTACCCTCGT TCCGATGCTG TCTTTCGCTG CTGAGGGTGA 1380 1381 CGATCCCGCA AAAGCGGCCT TTAACTCCCT GCAAGCCTCA GCGACEGAAT ATATCGGTTA 1440 1441 TGCGTGGGCG ATGGTTGTTG TCATTGTCGG CGCAACTATC GGTATCAAGC TGTTTAAGAA 1500 1501 ATTCACCTCG AAAGCAAGCT GATAAACCGA TACAATTAAA GGCTCCTTTT GGAGCCTTTT 1560 1561 TTTTTGGAGA TTTTCAACGT GAAAAAATTA TTATTCGCAA TTCCTTTAGT TGTTCCTTTC 1620 1621 TATTCTCACT CCGCTGAAAC TGTTGAAAGT TGTTTAGCAA AACCCCATAC AGAAAATTCA 1680 1681 TTTACTAACG TCTGGAAAGA CGACAAAACT TTAGATCGTT ACGCTAACTA TGAGGGTTGT 1740 1741 CTGTGGAATG CTACAGGCGT TGTAGTTTGT ACTGGTGACG AAACTCAGTG TTACGGTACA 1800 1801 TGGGTTCCTA TTGGGCTTGC TATCCCTGAA AATGAGGGTG GTGGCTCTGA GGGTGGCGGT 1860 1861 TCTGAGGGTG GCGGTTCTGA GGGTGGCGGT ACTABACCTC CTGAGTACGG TGATACACCT 1920 1921 ATTCCGGGCT ATACTTATAT CAACCCTCTC GACGGCACTT ATCCGCCTGG TACTGAGCAA 1980 1981 AACCCCGCTA ATCCTAATCC TTCTCTTGAG GAGTCTCAGC CTCTTAATAC TTTCATGTTT 2040 2041 CAGAATAATA GGTTCCGAAA TAGGCAGGGG GCATTAACTG TTTATACGGG CACTGTTACT 2100 2101 CAAGGCACTG ACCCCGTTAA AACTTATTAC CAGTACACTC CTGTATCATC AAAAGCCATG 2160 2161 TATGACGCTT ACTGGAACGG TAAATTCAGA GACTGCGCTT TCCATTCTGG CTTTAATGAA 2220 2221 GATCCATTCG TTTGTGAATA TCAAGGCCAA TCGTCTGACC TGCCTCAACC TCCTGTCAAT 2280 2281 GCTGGCGGCG GCTCTGGTGG TGGTTCTGGT GGCGGCTCTG AGGGTGGTGG CTCTGAGGGT 2340 2341 GGCGGTTCTG AGGGTGGCGG CTCTGAGGGA GGCGGTTCCG GTGGTGGCTC TGGTTCCGGT 2400 2401 GATTTTGATT ATGAAAAGAT GGCAAACGCT AATAAGGGG CTATGACCGA AAATGCCGAT 2460 2461 GAAAACGCGC TACAGTCTGA CGCTAAAGGC AAACTTGATT CTGTCGCTAC TGATTACGGT 2520 2521 GCTGCTATCG ATGGTTTCAT TGGTGACGTT TCCGGCCTTG CTAATGGTAA TGGTGCTACT 2580 2581 GGTGATTTTG CTGGCTCTAA TTCCCAAATG GCTCAAGTCG GTGACGGTGA TAATTCACCT 2640 2641 TTAATGAATA ATTTCCGTCA ATATTTACCT TCCCTCCCTC AATCGGTTGA ATGTCGCCCT 2700 2701 TTTGTCTTTA GCGCTGGTAA ACCATATGAA TTTTCTATTG ATTGTGACAA AATAAACTTA 2760 2761 TTCCGTGGTG TCTTTGCGTT TCTTTTATAT GTTGCCACCT TTATGTATGT ATTTTCTACG 2820 2821 TTTGCTAACA TACTGCGTAA TAAGGAGTCT TAATCATGCC AGTTCTTTTG GGTATTCCGT 2880 2881 TATTATTGCG TTTCCTCGGT TTCCTTCTGG TAACTITGTT CGGCTATCTG CTTACTTTTC 2940 2941 TTAAAAAGGG CTTCGGTAAG ATAGCTATTG CTATTTCATT GTTTCTTGCT CTTATTATTG 3000 3001 GGCTTAACTC AATTCTTGTG GGTTATCTCT CTGATATTAG CGCTCAATTA CCCTCTGACT 3060 3061 TTGTTCAGGG TGTTCAGTTA ATTCTCCCGT CTAATGCGCT TCCCTGTTTT TATGTTATTC 3120 3121 TCTCTGTAAA GGCTGCTATT TTCATTTTTG ACGTTAAACA AAAAATCGTT TCTTATTTGG 3180 3181 ATTGGGATAA ATAATATGGC TGTTTATTTT GTAACTGGCA AATTAGGCTC TGGAAAGACG 3240 3241 CTCGTTAGCG TTGGTAAGAT TCAGGATAAA ATTGTAGCTG GGTGCAAAAT AGCAACTAAT 3300 3301 CTTGATTTAA GGCTTCAAAA CCTCCCGCAA GTCGGGAGGT TCGCTAAAAC GCCTCGCGTT 3360 3361 CTTAGAATAC CGGATAAGCC TTCTATATCT GATTTGCTTG CTATTGGGCG CGGTAATGAT 3420 3421 TCCTACGATG AAAATAAAAA CGGCTTGCTT GTTCTCGATG AGTGCGGTAC TTGGTTTAAT 3480 3481 ACCCGTTCTT GGAATGATAA GGAAAGACAG CCGATTATTG ATTGGTTTCT ACATGCTCGT 3540 3541 AAATTAGGAT GGGATATTAT TITTCTTGTT

3781 ACTGGTAAGA ATTTGTATAA CGCATATGAT ACTAAACAGG CTTTTTCTAG TAATTATGAT 3840

3601 CGTTCTGCAT TAGCTGAACA TGTTGTTTAT

3661 TTTGTCGGTA CTTTATATTC TCTTATTACT

3721 GTTGGCGTTG TTAAATATGG CGATTCTCAA

CAGGACTTAT CTATTGTTGA TAAACAGGCG 3600

TGTCGTCGTC TGGACAGAAT TACTTTACCT 3660

GGCTCGAAAA TGCCTCTGCC TAAATTACAT 3720

TTAAGCCCTA CTGTTGAGCG TTGGCTTTAT 3780

1x60





3841	TCCGGTGTTT	ATTCTTATTT	AACGCCTTAT	TTATCACACC			
3901	AATTTAGGTC	AGAAGATGAA	GCTTACTAAA	ATATATEMENCA	GICGGTATTT	CAAACCATTA	3900
3961	TGTCTTGCGA	TTGGATTTGC	ATCAGCATTT	ACATATACON	AAAAGTTTTC	ACGCGTTCTT	3960
4021	GAGGTTAAAA	AGGTAGTCTC	TOLCACCTAT	ACMINIAGIT	ATATAACCCA	ACCTAAGCCG	4020
4081	CAGCGTCTTA	ATCTAAGCTA	TOCOMECIAI	GATTTTGATA	AATTCACTAT	TGACTCTTCT	4080
4141	AGCGACGATT	TACAGAAGCA	reservici	TTCAAGGATT	CTAAGGGAAA	ATTAATTAAT	4140
4201	ATTRABARA	GTAATTCAAA	AGGITATTCA	CTCACATATA	TTGATTTATG	TACTGTTTCC	4200
4261	TOTTTTT	GIAATICAAA	TEXAMITETT	AAATGTAATT	AATTTTGTTT	TCTTGATGTT	4260
4221	TOTALCATCA	TCTTCTTTTG	CTCAGGTAAT	TGAAATGAAT	AATTCGCCTC	TGCGCGATTT	4320
4361	TGTAACTTGG	TATTCAAAGC	AATCAGGCGA	ATCCGTTATT	GTTTCTCCCG	ATGTAAAAGG	4380
4381	TACTGTTACT	GTATATTCAT	CIGACGITAA	ACCTGAAAAT	CTACGCAATT	TCTTTATTTC	4440
4441	TGTTTTACGT	GCTAATAATT	TTGATATGGT	TGGTTCAATT	CCTTCCATAA	TTCAGAAGTA	4500
4501	TAATCCAAAC	AATCAGGATT	ATATTGATGA	ATTGCCATCA	TCTCATAATC	AGGAATATGA	4560
4561	TGATAATTCC	GCTCCTTCTG	GTGGTTTCTT	TGTTCCGCAA	AATCATAATC	TTACTCAAAC	4560
4621	TTTTAAAATT	AATAACGTTC	GGGCAAAGGA	TTTAATACCA	CTTCTTANIC	TRUTCAAAC	4620
4681	GTCTAATACT	TCTAAATCCT	CARATGTATT	ATCTATTCAC	GIIGICGAAT	TGTTTGTAAA	4680
4741	TAGTGCACCT	AAAGATATTT	TAGATAACCT	TOTALIGAC	GGCTCTAATC	TATTAGTTGT	4740
4801	AACTGACCAG	ATATTGATTG	AGGGTTTCAT	1 CCTCANTIC	CITTCTACTG	TTGATTTGCC	4800
4861	TTTTTCATTT	GCTGCTGGCT	CTCACCCTCC	ATTTGAGGTT	CAGCAAGGTG	ATGOTTTAGA	4860
4921	CCTCACCTCT	GTTTTATCTT	CTCAGCGIGG	CACTGTTGCA	GGCGGTGTTA	ATACTGACCG	4920
4981	AGGGGTATON	GTTCGCGCAT	C.GCTGGTGG	TTCGTTCGGT	ATTTTTAATG	GCGATGTTTT	4980
5041	TATTCTTALCA	GITCGCGCAT	TAAAGACTAA	TAGCCATTCA	AAAATATTGT	CTGTGCCACG	5040
5101	TATICITACG	CTTTCAGGTC	AGAAGGGTTC	TATCTCTGTT	GGCCAGAATG	TCCCTTTTAT	5100
2101	TACTGGTCGT	GTGACTGGTG	AATCTGCCAA	TGTAAATAAT	CCATTTCAGA	CGATTGAGCG	5160
2191	TCAAAATGTA	GGTATTTCCA	TGAGCGTTTT	TCCTGTTGCA	ATGGCTGGCG	GTAATATTGT	5220
5221	TCTGGATATT	ACCAGCAAGG	CCGATAGTTT	GAGTTCTTCT	ACTCAGGCAA	GTGATGTTAT	5290
5281	TACTAATCAA	AGAAGTATTG	CTACAACGGT	TAATTTGCGT	GATGGACAGA	CTCTTTTACT	5240
5341	CCGTGGCCTC	ACTGATTATA	AAAACACTTC	TCAAGATTCT	CCCCTACCCT	TCCTGTCTAA	3340
5401	AATCCCTTTA	ATCGGCCTCC	TGTTTAGCTC	CCCCTCTCAT	TCCLLCCLCI	AAAGCACGTT	5400
5461	ATACGTGCTC	GTCAAAGCAA	CCATAGTACG	CCCCCCCCA	CCCAACGAGG	AAAGCACGTT	5460
5521	GTGTGGTGGT	TACGCGCAGC	GTGACCGCTA	CACCCIGIAG	CGGCGCATTA	AGCGCGGCGG	5520
5581	TCGCTTTCTT	CCCTTCCTTT	CTCCCCACCT	CACTIGUEAG	CGCCCTAGCG	CCCCCTCCTT	5580
5641	GGGGGCTCCC	TTTAGGGTTC	CCATTTACTC	CERTAGO	TCCCCGTCAA	GCTCTAAATC	5640
5701	ATTTGGGTGA	TGGTTCACGT	y CTCCCCC	CITTACGGCA	CCTCGACCCC	AAAAAACTTG	5700
5761	CGTTGGAGTC	CACGTTCTTT	AGEGGGCCAI	CGCCCTGATA	GACGGTTTTT	CGCCCTTTGA	5760
5821	CTATCTCCCC	CTATTCTTTT	AMINGIGGAC	TCTTGTTCCA	AACTGGAACA	ACACTCAACC	5820
SRRI	ACACCATETT	CGCCTGCTGG	GATTTATAAG	GGATTTTGCC	GATTTCGGAA	CCACCATCAA	5880
5041	CCSCCCCCCC	CGCCTGCTGG	GGCAAACCAG	CGTGGACCGC	TTGCTGCAAC	TCTCTCAGGG	5940
2241	CCVGGCGG10	AAGGGCAATC	AGCTGTTGCC	CGTCTCGCTG	GTGAAAAGAA	AAACCACCCT	6000
9001	GGCGCCCAAT	ACGCAAACCG	CCICICCCCC	CGCGTTGGCC	GATTCATTAA	TGCAGCTGGC	6060
0001	ACGACAGGTT	TCCCGACTGG	AAAGCGGGCA	GTGAGCGCAA	CGCAATTAAT	GTGAGTTAGC	6120
9151	TCACTCATTA	GGCACCCCAG	GCTTTACACT	TTATGCTTCC	GGCTCGTATG	TIGIGIGGAA	6190
6181	TTGTGAGCGG	ATAACAATTT	CACACGCCAA	GGAGACAGTC	ATANTGAAAT	ACCTATTGCC	6140
6241	TACGGCAGCC	GCTGGATTGT	TATTACTCGC	TGCCCAACCA	CCCATCCCCC	AGCTCTTCCC	6240
6301	GCCATCTGAT	GAGCAGTTGA	AATCTGGAAC	TGCCTCTCTT	CTCTCCCTCC	TGAATAACTT	6300
6361	CTATCCCAGA	GAGGCCAAAG	TACAGTGGAA	GGTGGATAAC	CCCCCCCC	IGAATAACTT	6360
6421	CCAGGAGAGT	GTCACAGAGC	AGGACAGCAA	GGACACCACC	GCCCTCCAAT	CGGGTAACTC	6420
6481	GACGCTGAGC	AAAGCAGACT	ACGAGAAACA	CARACTORIO	TACAGCCTCA	GCAGCACCCT	6480
6541	GGGCCTGAGC	TCGCCCGTCA	CALACACCTT	CHANGICIAC	GCCTGCGAAG	TCACCCATCA	6540
6601	CTTGGCACTG	GCCGTCGTTT	TICILICETE	CAACAGGGGA	GAGTGTTCTA	GAACGCGTCA	6600
6661	TTTGTACATC	GAGAAAATAA	INCANCUICG	TGACTGGGAA	AACCCTGGCG	TTACCCAAGC	6660
6721	CTCTTTACCC	CTGTGGCAAA	AGIGAAACAA	AGCACTATTG	CACTGGCACT	CTTACCGTTA	6720
6781	CCCTCCTCC	CIGIGGCAAA	AGCCGCCTCC	ACCAAGGGCC	CATCGGTCTT	CCCCCTGGCA	6780
6941	TOCCOCA	AGAGCACCTC	TGGGGGCACA	GCGGCCCTCG	GCTGCCTGGT	CAAGACTAAT	6840
5071	TOCCOLARCE	GGTGACGGTG	TCGTGGAACT	CAGGCGCCCT	GACCAGCGGC	GTGCACACCT	6900
2051	CCLCGCTGT	CCTACAGTEC	TCAGGACTCT	ACTCCCTCAG	CAGCGTGGTG	ACCGTGCCCT	5960
2000	CCAGCAGCTT	GGGCACCCAG	ACCTACATOT	GCAACGTGAA	TCACAAGCCC	AGCAACACCA	7020
/021	AGGTGGACAA	GAAAGCAGAG	CCCANATOTT	CTACTACTOC	ATCCTACCCG	TACGACGTTC	7080
7081	CGGACTACGC	TTCTTAGGCT	GAAGGCGATG	ACCCTGCTAA	GGCTGCATTC	AATAGTTTAC	7080
7141	AGGCAAGTGC	TACTGAGTAC	ATTGGCTACC		CCTRCTACTT	ATAGTTGGTG	/140
/201	CTACCATAGG	GATTARATTA	TTCARRAGT	TTACGACCAA	CCCLACAGE	GCAATAGCGA	7200
7261	AGAGGCCCGC	ACCGATCGCC	CTTCCCBACA	GTTGCGCACC	CTCLLTAA	GLAATAGCGA	7260
7321	TGCCTGGTTT	CCGGCACCAG	AAGCGGTGCC	CCILICAGE	CTCAATGGCG	AATGGCGCTT	7320
7381	GGCCGATACG	GTCGTCGTCC	CCTCBBBCTC	CCACAMOCIGG	CTGGAGTGCG	ATCTTCCTGA	7380
7441	CACCAACGTA	ACCTATOCCA	TTACCCTCAA	TOOCCAC	GGTTACGATG	CGCCCATCTA	7440
7501	GGGTTGTTAC	TCGCTCACAT	TTRESUMENT	TODALL	GTTCCCACGG	AGAATCCGAC	7500
7561	AATTATTTTT	GATGGCGTTC	CTATROCTE	TGAAAGCTGG	CTACAGGAAG	GCCAGACCCC	7560
7621	CCGAATTTT	ACAAAATATT	CIATTGGTTA	AAAAATGAGC	TGATTTAACA	AAAATTTAAC	7620
7691	TTTTTCCCC	TTATAAAA	AACGTTTACA	ATTTAAATAT	TIGCTIATAC	AATCTTCCTG	7680
7741	TTACCOCC	TTTTCTGATT	ATCAACCGGG	GTACATATGA	TTGACATGCT	AGTTTTACCA	7740
7000	CTACCUTTCA	TCGATTCTCT	TGTTTGCTCC	AGACTCTCAG	GCAATGACCT	GATAGCCTTT	7800
7001	GIAGATETET	CAAAAATAGC		GGCATTAATT	TATCAGCTAG	AACGGTTGAA	7860
7861	TATCATATIG	ATGGTGATTT	GACTGTCTCC	GGCCTTTCTC	ACCUTTTON	ATCTTTACCT	7070
7921	ACACATTACT	CAGGCATTGC	ATTTRRBBATE				
7981	GTTGAAATAA	AGGCTTCTCC	CCCAAAACTA				
			GGCTTTATTG	CTTAATTTTC	CTAATTCTT	CCCTTCCTCC	8040
8101	TATGATTTAT	TGGACGTT			CAMPICITY		
							8118